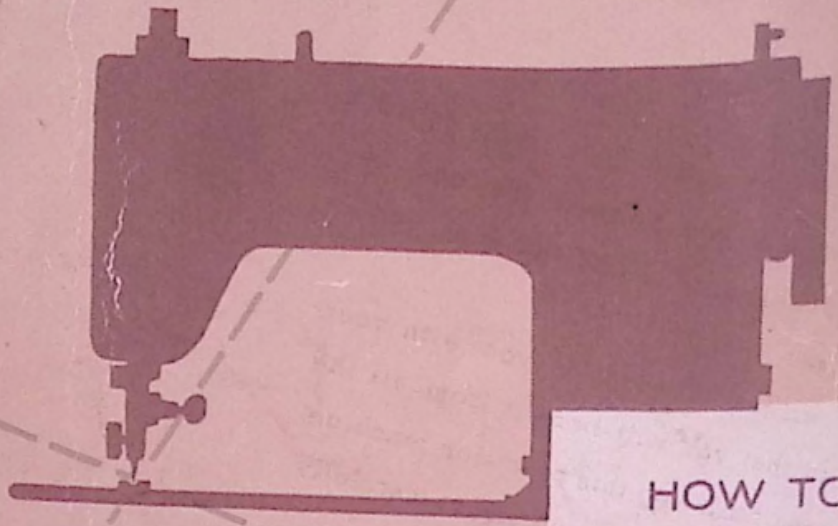

HOW TO USE YOUR

KENMORE

SEWING MACHINE

MODEL

86

Dear Friend,

We're certainly glad you selected a KENMORE Sewing Machine, because we believe it's one of the best - - - STYLE-wise, FEATURE-wise, and PERFORMANCE-wise!

This booklet was written to acquaint you with your new KENMORE, so that you will benefit from all the sewing conveniences built into this precision machine. We hope you will read the following pages carefully.

If ever you have any questions about using your sewing machine, I'll be happy to answer them for you.

Jean Shaw

Director, Home Economics Laboratory
Dept. 817, Sears, Roebuck & Co.
Chicago 7, Ill.

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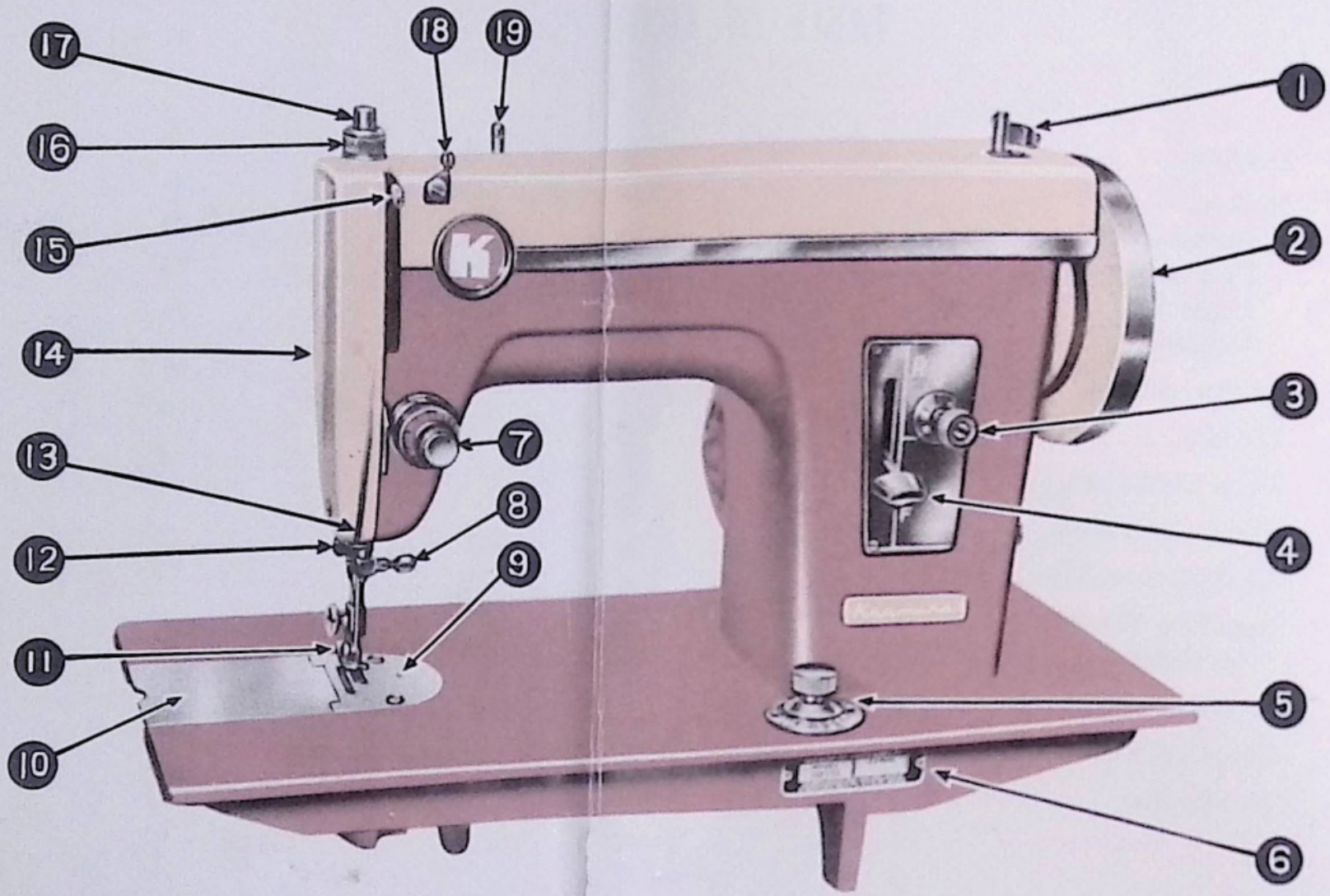
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HEAD PARTS IDENTIFICATION

1. Bobbin Winding Mechanism.
2. Hand Wheel.
3. Stitch Length Control Dial.
4. Stitch Length Control.
5. Drop Feed Control.
6. Nomenclature Plate.
7. Upper Thread Tension Assembly.
8. Needle Clamp Screw.
9. Needle Plate.
10. Cover Plate.
11. Presser Foot.
12. Thread Cutter.
13. Face Plate Thread Guide.
14. Face Plate.
15. Thread Take-Up Lever.
16. Darning Release Mechanism.
17. Presser Regulator for Presser Bar
18. Upper Thread Looper.
19. Thread Guide.

INSTALLING MACHINE HEAD

Loosen the two hinge screws under holes in the rear edge of the machine bed (1).

Raise hinge pins in the cutout (2).

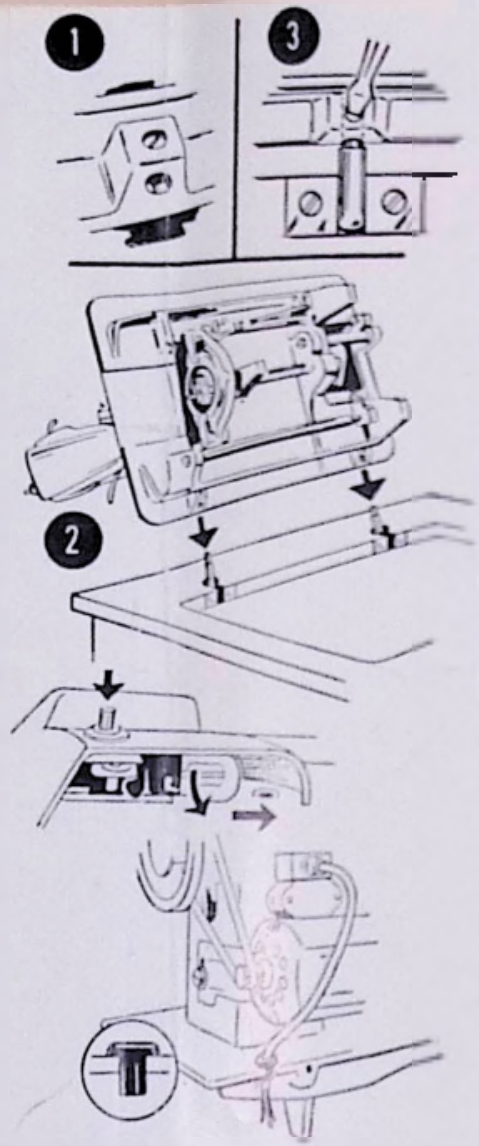
Slip machine head onto the pins and tighten hinge screws securely (3).

Lower machine head to front flap.

SEWING LIGHT

To turn no light, push button on the light cover.
To turn off light, push buttton on the light cover.

To remove bulb, disconnect sewing machine, push bulb in slightly. Turn bulb counter-clockwise until it stops. Bulb can then be pulled from socket. To replace, push bulb in until it stops, Turn it clockwise until it stops.



NEEDLE SIZE

Use Kenmore 6021 needles. The size of the needle should conform to the size of the thread and both should be suitable to the material. The same size thread should be used in the bobbin as on the upper part of the machine for ordinary sewing.

Never use a bent needle nor one with a blunt point.

CONNECTING MACHINE

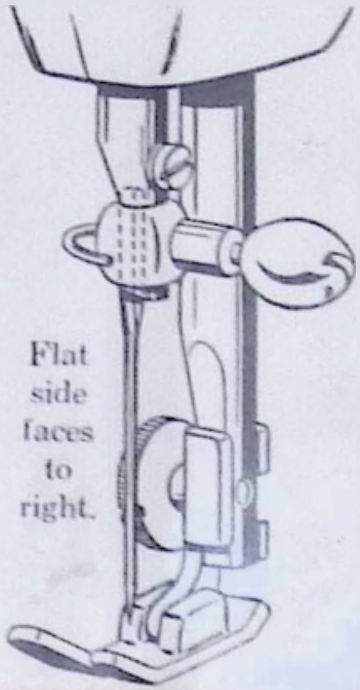
Push the plug onto three prong connector over the machine motor. Plug machine cord into any 110-120V wall outlet. When installed in cabinet, insert grommet with cord in hole in bedplate.

NEEDLE AND THREAD TABLE

THREAD SIZE	NEEDLE SIZE	STRAIGHT STITCH LENGTH	FABRIC
Cotton 80-100 Nylon A Silk A Machine embroidery	0	1-1½	Sheer cottons, silks, and nylons Fine Laces
Cotton 60-80 Mercerized 50 Nylon A Silk A Machine embroidery	1	1½-2	Light to medium weight cottons Light to medium weight silks Medium weight nylons Light weight woolens
Cotton 40-60 Mercerized 50 Mercerized heavy duty	2	2-3	Heavy weight cottons Medium to heavy weight woolens Heavy drapery fabrics
Cotton 30-50 Mercerized heavy duty	3	3-4	Heaviest cottons as for men's work clothes Heaviest woolen coating

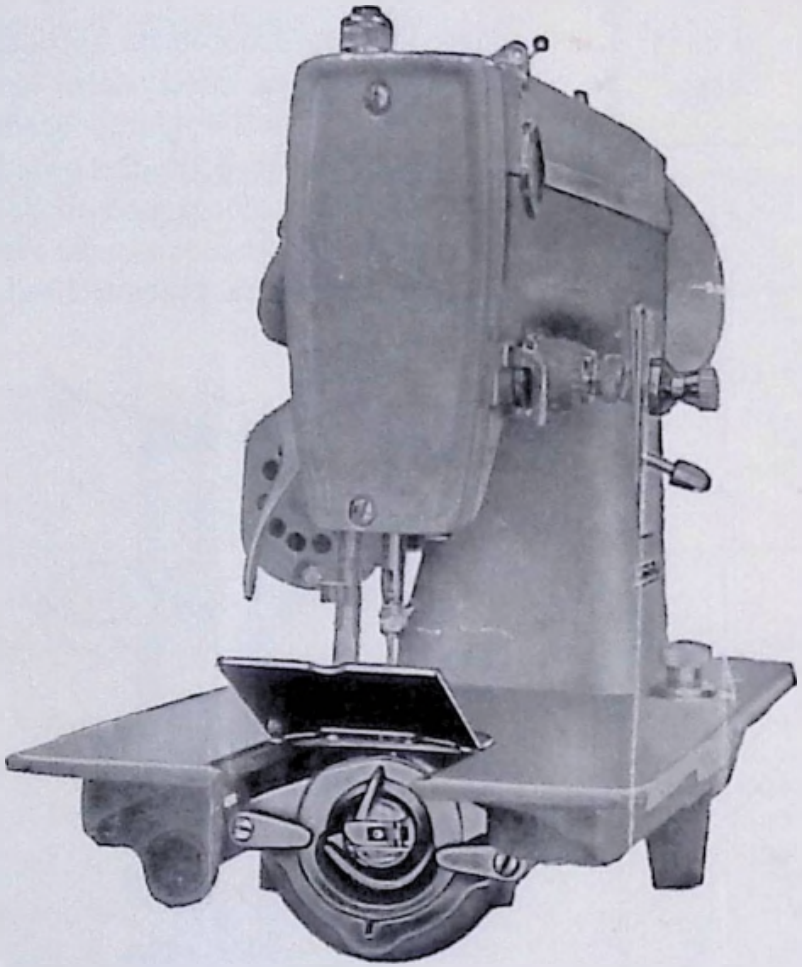
PLACEMENT OF NEEDLE

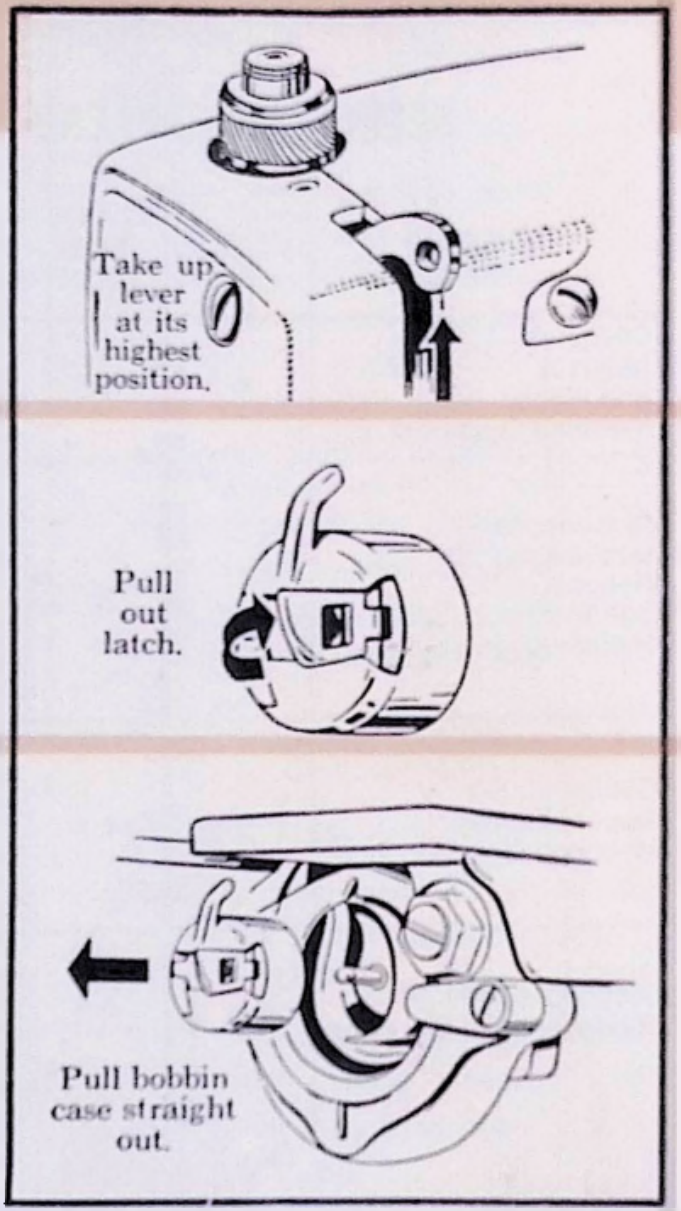
Raise take-up lever to its highest position by turning hand wheel toward you. Loosen needle clamp screw. Hold needle so that the flat side is to your right, slip blunt end of needle as far as it will go into needle clamp. Tighten needle into place with clamp screw.



Flat side faces to right.

REMOVING BOBBIN CASE FROM SHUTTLE

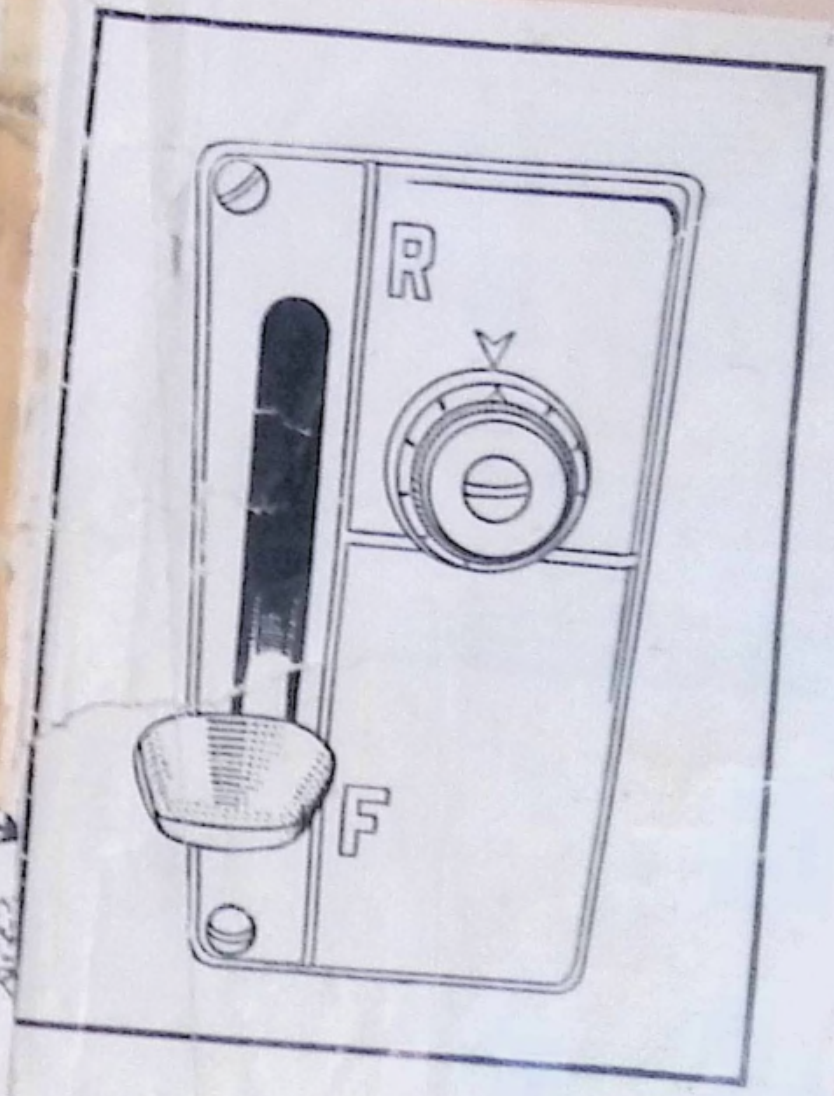




REGULATING LENGTH OF STITCH

The stitch regulator lever controls the stitch length.

Set dial to any desired stitch length position between 0 and 4. Push regulator lever until it stops. The 4 setting is the longest stitch. The size of stitch you select will depend on the fabric you are sewing.



ADJUSTING TENSIONS

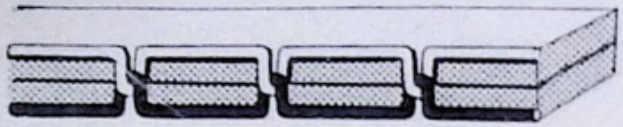


Fig. 1

A perfect stitch will have threads locked between the two layers of fabric with no loops on top or bottom.

PROBLEM	REMEDY
Upper thread too tight	Decrease Tension
Upper thread too loose	Increase Tension

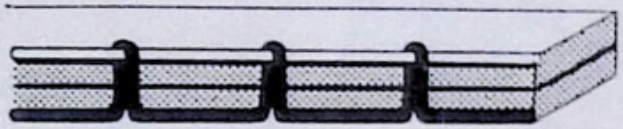


Fig. 2

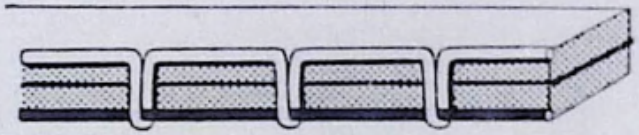
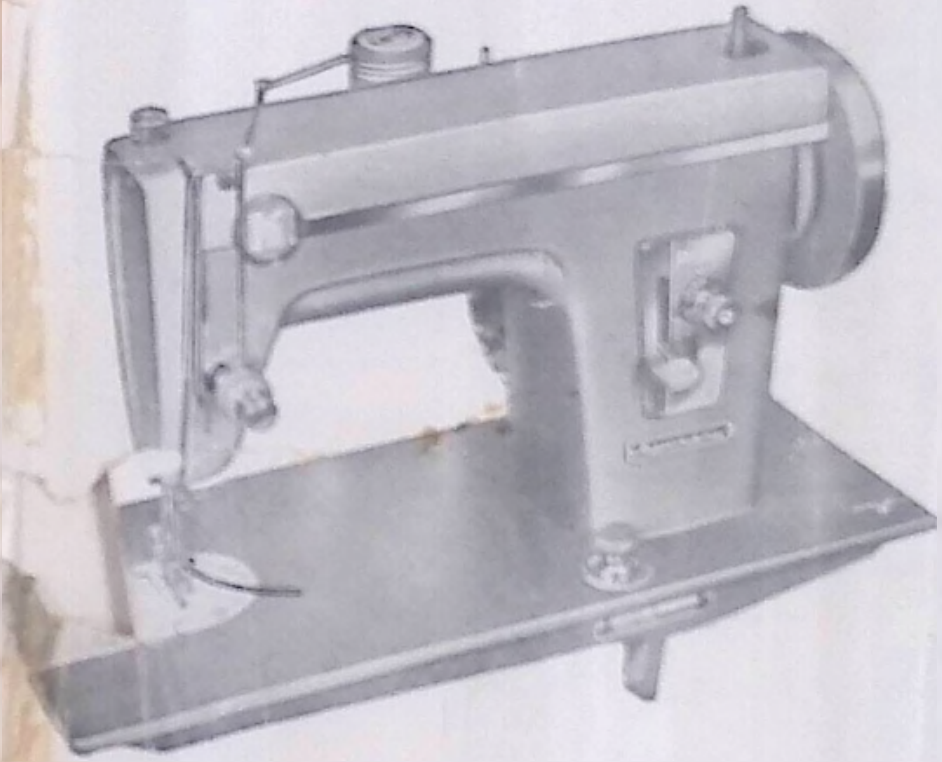
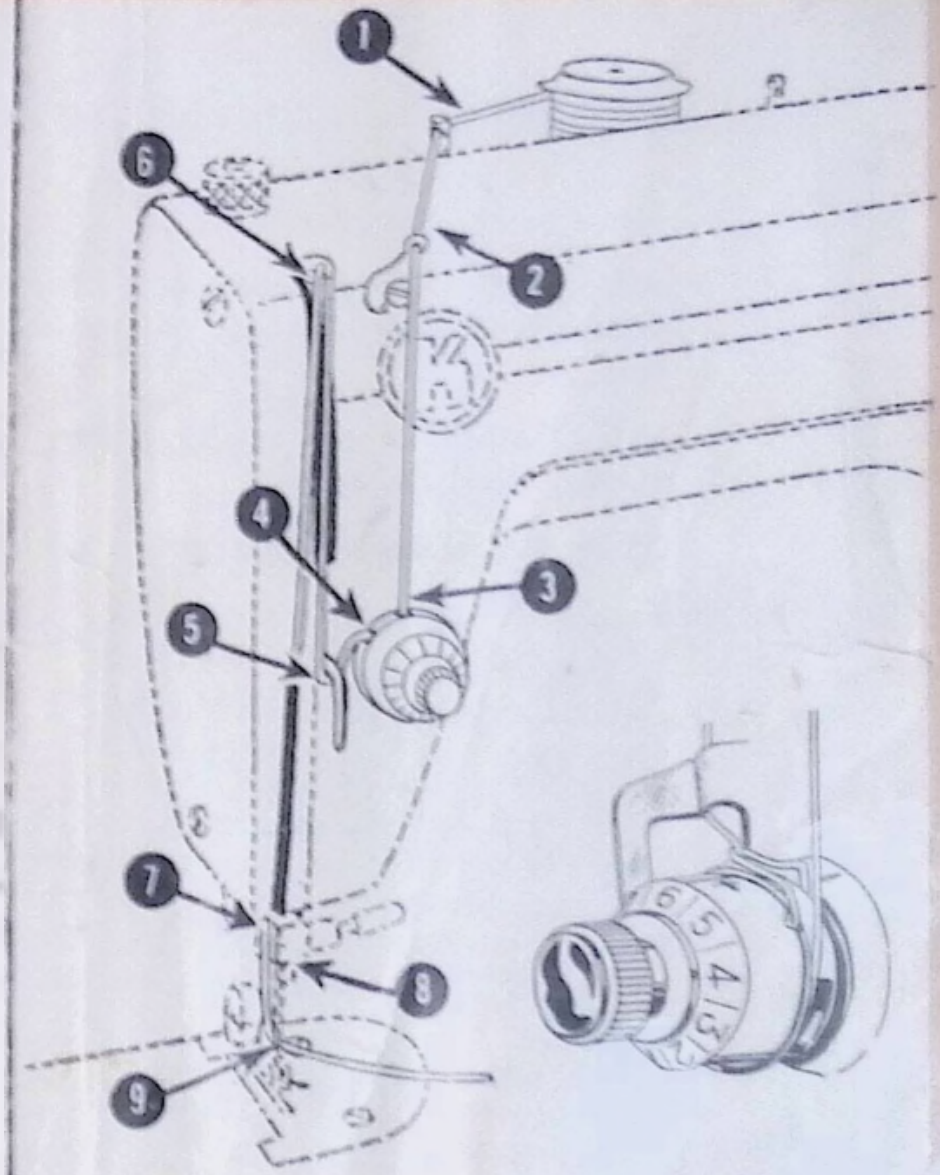


Fig. 3

THREADING UPPER MACHINE





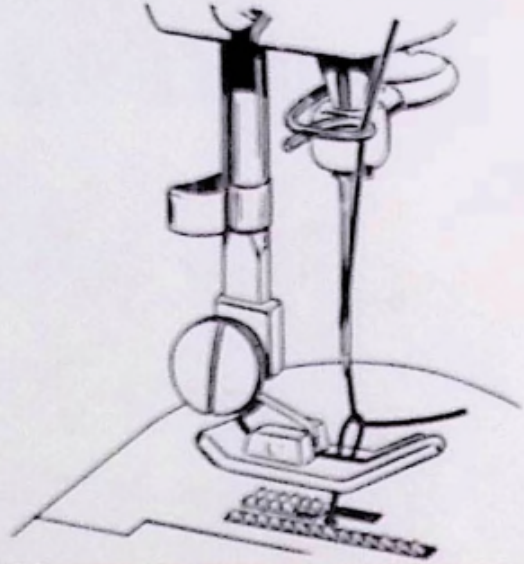
PICKING UP BOBBIN THREAD

Raise presser foot lever.

Hold needle thread loosely in left hand and rotate hand wheel toward you one complete turn.

Bring bobbin thread up by pulling upper thread. (See illustration).

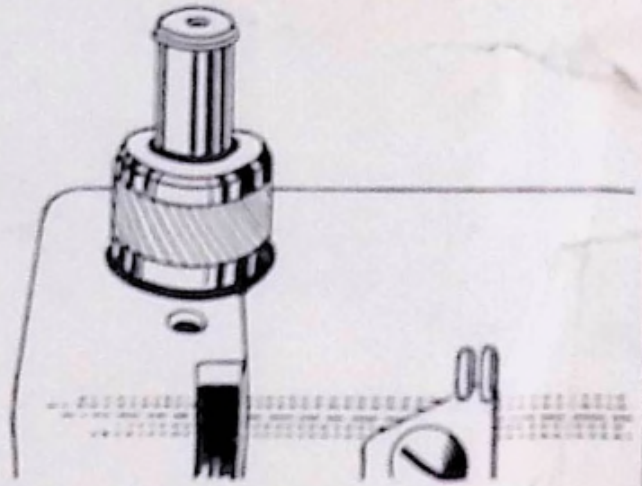
Place threads back under presser foot.



ADJUSTING THE PRESSURE OF THE PRESSER FOOT

For most normal sewing the inner pin of the Presser Foot pressure regulator should be push down as far as possible. When sewing multiple thickness or heavy material you may prefer less pressure on the Presser Foot.

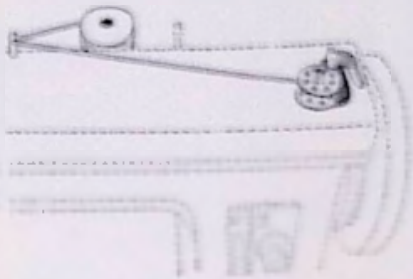
Push down on inner pin of Presser Foot pressure regulator to desired pressure. To release pressure, press down on outer ring.



WINDING THE BOBBIN

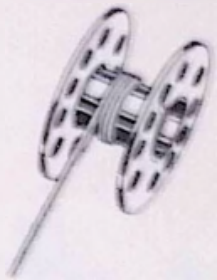
1

Place thread on spool post. Lead thread through the thread guide on arm top cover as shown in the figure.



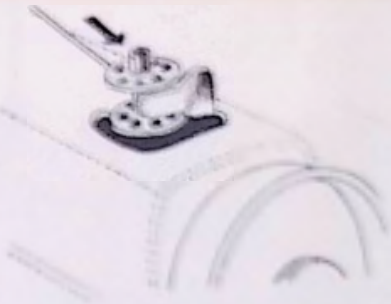
2

Wind thread around bobbin a few times, front to back.
Guide bobbin onto bobbin winder shaft.



3

Push bobbin winder shaft towards hand wheel.

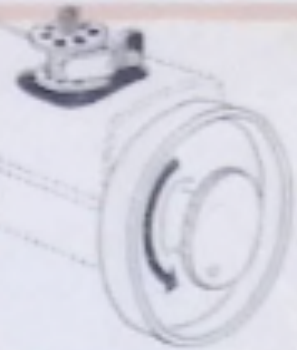


4

Release clutch by turning clutch knob towards you.

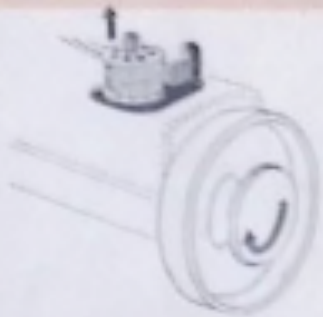
5

Start machine. When bobbin is full, winding mechanism stops automatically.



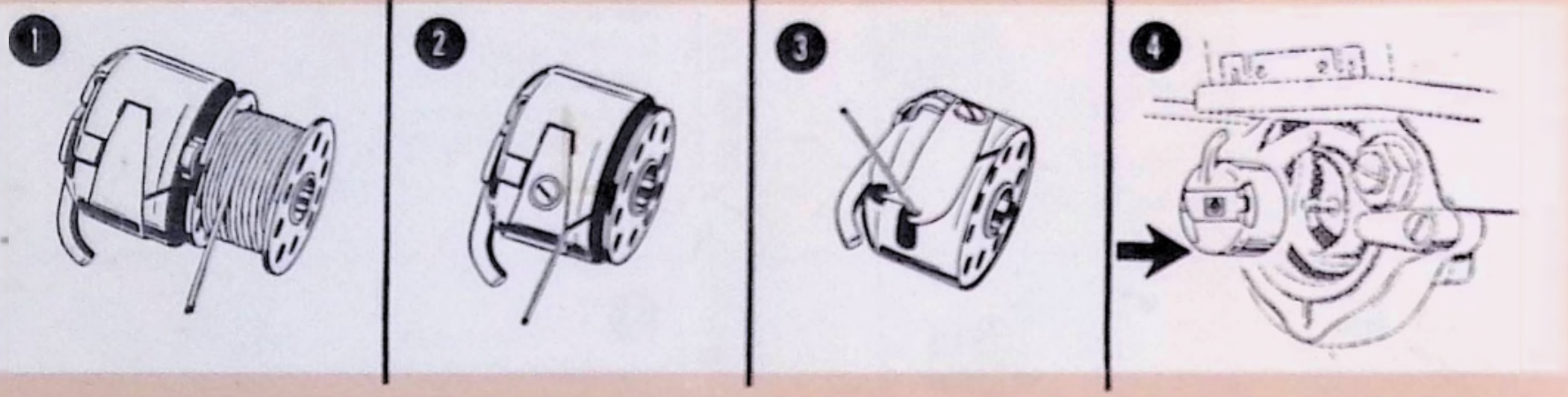
6

Tighten hand wheel and remove bobbin.



INSERTING BOBBIN INTO BOBBIN CASE...CASE INTO SHUTTLE

1. Guide bobbin onto center pin of bobbin case, holding latch.
2. Pull thread through slot.
3. Pull thread under tension spring.
4. Position case into shuttle, release latch.

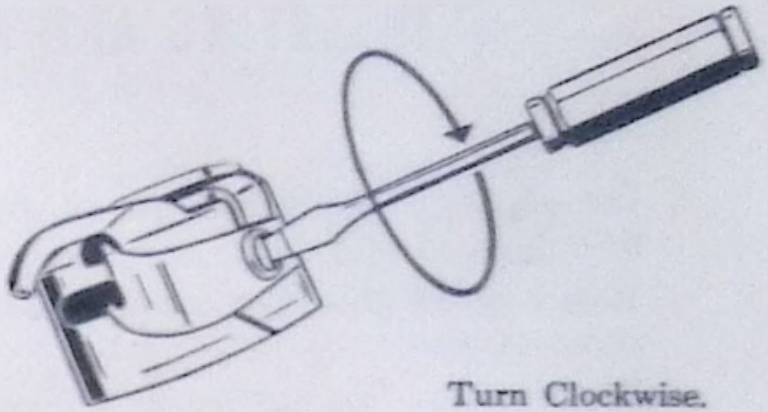


When stitching is unsatisfactory as in figures 2 and 3, adjust the upper thread tension. Lower thread tension is preset and rarely requires adjustment for general sewing.

However, if stitch is satisfactory, as in figure 1 and seam is badly puckered, the cause may be tight tensions and both upper and lower may be adjusted.

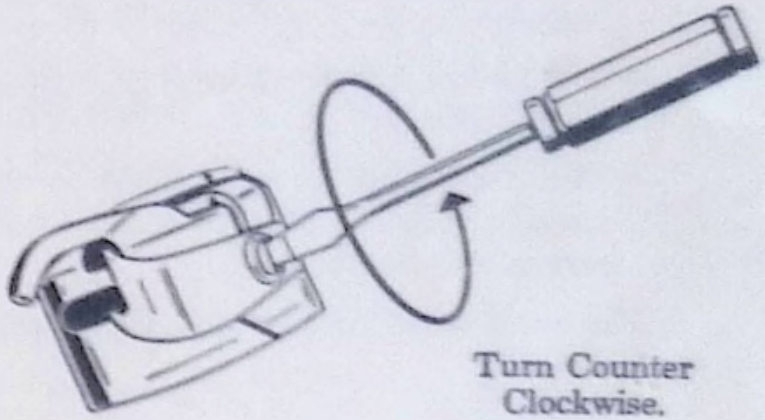
When adjusting the tension on the bobbin case, make slight adjustments with a screwdriver.

INCREASE TENSION



Turn Clockwise.

DECREASE TENSION



Turn Counter Clockwise.

INSERTING AND REMOVING THE MATERIAL

For all kinds of sewing, consult chart page 5.

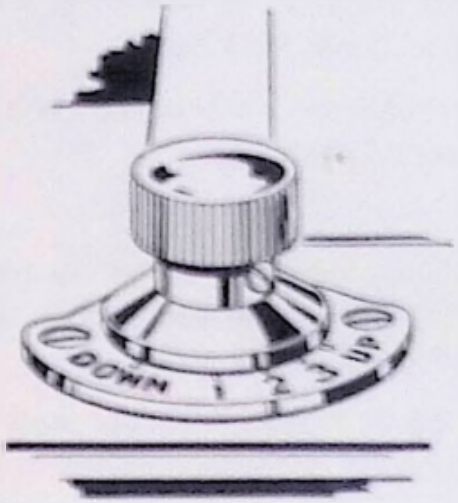
Before placing the material on the machine see that:

- The presser foot and needle clamping screws are both tight
- The sizes of needle and thread suit the kind of work to be done
- The tensions have been properly adjusted
- The thread take-up lever is at its highest position
- Make sure that the ends of the threads have been drawn about 4 inches to the rear of the machine

Place material underneath the presser foot, insert the needle into the material by turning the handwheel toward you, lower presser foot and start sewing.

To remove the work, first turn the handwheel toward you until the thread take-up lever is in its highest position, then raise the presser foot, remove the material to the rear and cut off excess thread with the thread cutter located on the presser bar.

IMPORTANT: Always turn the handwheel toward you! When the machine is not being used, place a piece of material over the feed dog and lower the presser foot. Never operate the machine when it is threaded, or if the presser foot has been lowered, unless a piece of material is under the presser foot.



TURNING A CORNER

Stop your sewing machine and make sure needle is in fabric. Raise presser foot. Turn fabric to desired direction. Lower presser foot and go on with your stitching.

DROP FEED CONTROL

This knob is situated on right front of machine bed. When knob is turned to the LEFT, feed dog does not pull material. This allows the operator freedom of movement of material. For regular sewing, turn knob to the RIGHT.

BASTING

For accomplishing quicker, more even and firmer basting, we suggest you regulate the machine in the following manner: Set stitch regulator at No. 4 for the longest possible stitch. Basting is easily removed by pulling bottom thread. When basting very sheer fabrics, use a paper backing.

REVERSE STITCHING

To sew in reverse, stop sewing, move stitch regulator lever up until it stops. Reverse stitching will be the same size as forward stitching.

FASTENING A SEAM

The following method of fastening a seam is often called "back tacking."

Lower needle into fabric ½ inch from beginning of seam.

Lower presser foot.

Raise stitch regulator lever up until it stops. Stitch in reverse until needle reaches beginning of seam.

Lower stitch regulator lever and complete seam.

When end of seam is reached, sew in reverse ½ inch.

Remove material and cut thread on cutter.

DARNING

WITH PRESSER FOOT:

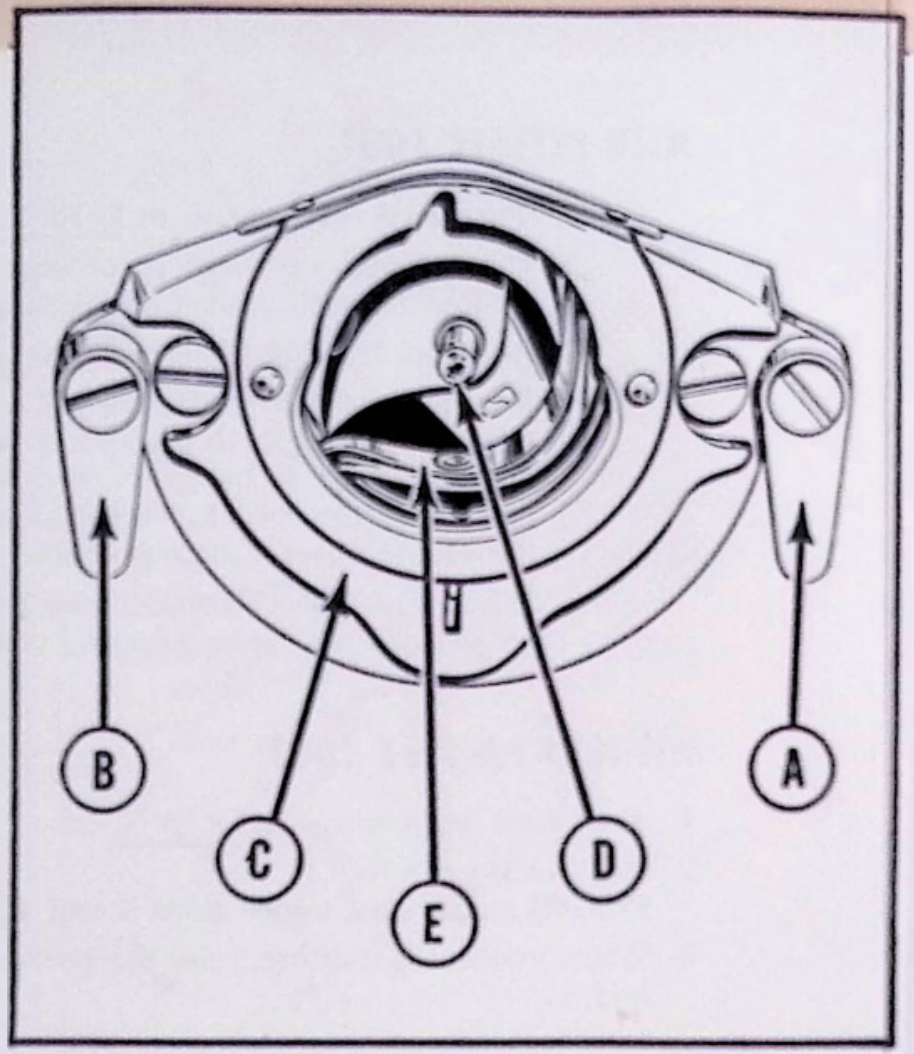
1. Turn feed dog control to DOWN.
2. Press down outer ring of pressure foot release, see page 10. With release in this position mending, darning, monogram work, etc. may be done.
3. Stretch fabric tightly between two spring embroidery hoops and place under needle.
4. Lower presser bar so thread will have some tension. When you start to darn, move fabric back and forth to cover darning area. Then turn fabric and continue sewing at right-angles to the previous stitching. Always use medium machine speed. You can make any length stitches desired. Slow movement of fabric will make short darning stitches. Fast movement will make long stitches.
5. When you finish darning, raise presser foot and remove fabric. Increase pressure for general sewing by pressing center pin of presser foot release.

WITHOUT PRESSER FOOT:

1. Turn feed dog control to DOWN.
2. Remove presser foot.
   Proceed as directed under steps 3 and 4 above.
5. When you finish darning, raise the presser bar and remove fabric. Replace presser foot.

REMOVING LINT

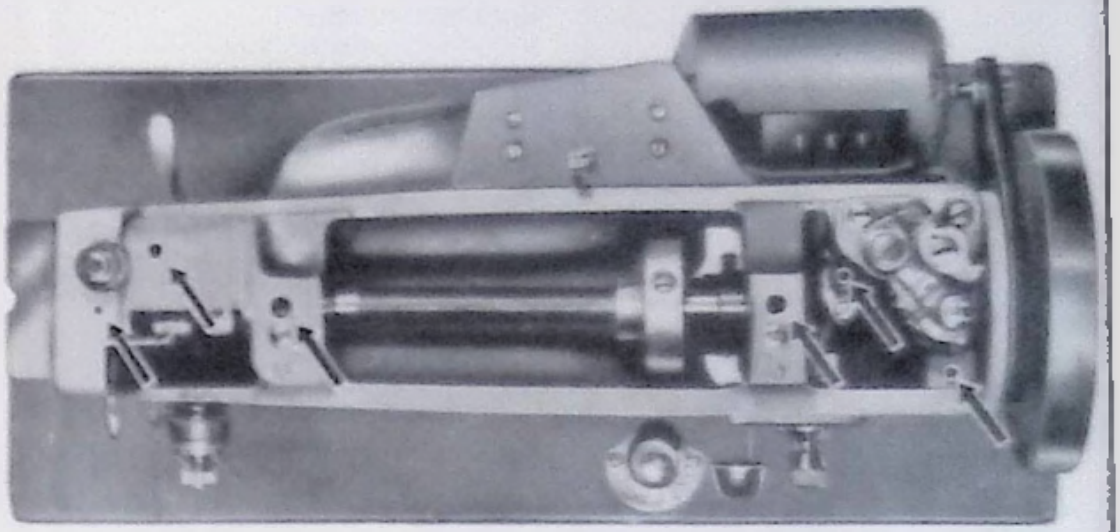
1. Turn hand wheel toward you until needle is at its highest position. Remove bobbin and bobbin case.
2. Turn knob (A) one-half turn toward you.
   Turn knob (B) one-half turn away from you.
3. Remove shuttle race cover (C). Then remove shuttle (D) by grasping axle.
4. Remove accumulated lint and thread from all parts of race.
5. Replace shuttle in race body, with axle facing out, forming a perfect circle with driver (E).
6. Replace shuttle race cover (C), polished side out, so that both grooves are under knobs (A) and (B).
7. Replace bobbin and bobbin case.
8. *Do not attempt to force any of the above operation.*



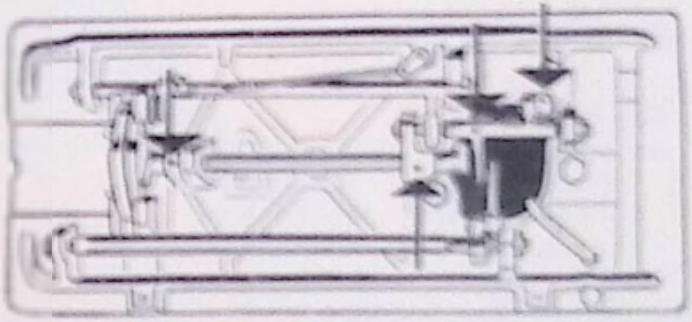
OILING MACHINE

Keep the moving parts free from dust and threads for quiet and efficient operation. Cleaning should be done with a small brush; never with a sharp or pointed tool. When machine runs hard or makes excessive noise, place a drop of KENMORE sewing machine oil at the points indicated in the picture.

CAUTION: Push the bobbin winder shaft towards hand wheel before removing the top cover.



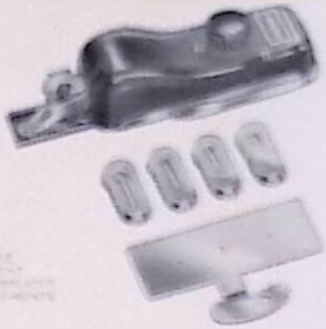
Tilt machine head back to oil points indicated on under side of machine head.

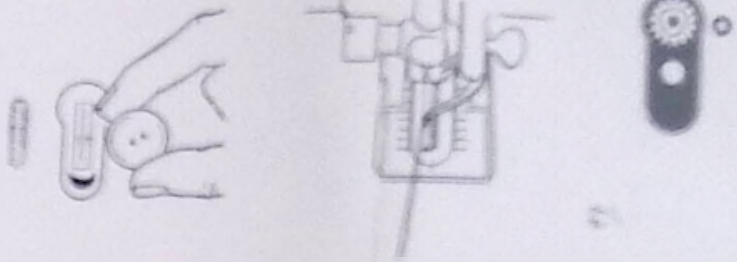


WHAT TO DO

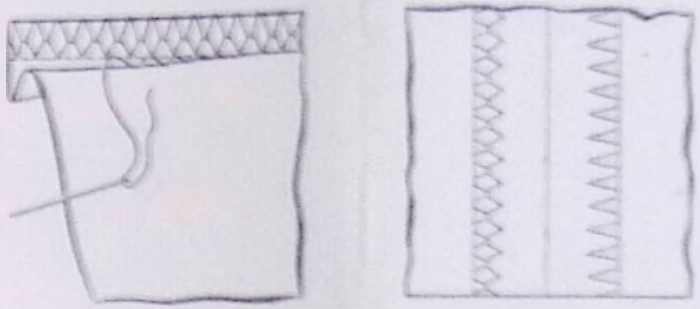
PROBLEM	PROBABLE CAUSE	REMEDY
Skipped stitches	Crooked needle	Replace with new needle, page 5.
	Incorrect needle size	See page 5.
	Needle rubbing presser foot	Loosen screw that fastens foot to bar and adjust proper position. (Needle should be a trifle closer to right side of needle hole.)
Breaking threads	Wrong or crooked needle	See page 4.
	Needle hole choked with threads	Pull threads from underside of plate with screwdriver or remove plate and clean.
	Improper threading	See page 9.
	Top tension too tight	See page 12 or 13.
	Needle rubbing presser foot	See "Skipped stitches" above.
Breaking Needles	Pulling material when sewing	Guide, don't pull.
	Needle wrong size or incorrectly set	See page 5.
	Needle rubbing presser foot	See "Skipped stitches" above.
Puckering of Fabrics	Tension not in balance or too tight	See pages 12, 13.
	Blunt needle	Change needles, see page 5.
	Presser foot loose in holder	Tighten
Loose stitching	Tension too loose . . . either top or bottom or both.	See pages 12, 13.
Machine running hard	Needs oiling	See page 19.
	Thread in shuttle	Remove bobbin case and turn hand wheel away from you. If this does not cut out thread, remove shuttle and clean shuttle race and driving pins. See page 18.

To expand the versatility of your machine. these efficient. easy to use attachments are available.

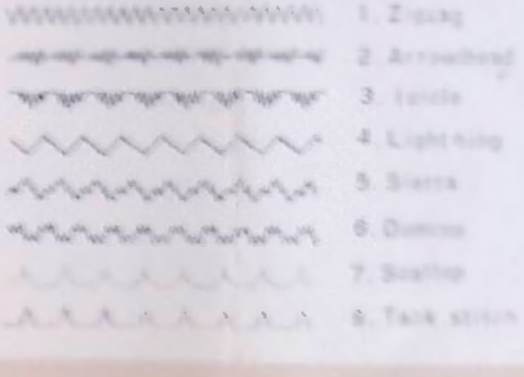




Makes perfect keyhole, slot and eyelet buttonholes. Fast, easy way to stitch exactly matched buttonholes of any size desired.
Save many hours of time and trouble.



No more ravelled seams when you use this handy new aid for overcasting.
Gives fray proof edges to fabrics of many weights. Also replaces tape for finishing hem edges.



Now your straight stitch Kenmore can do fancy stitching! Eight basic stitches may be varied for making many decorative stitch patterns, beautiful appliques and lovely scallop trims.

The above attachments are available through your local Sears store or nearest Mail Order house.

WHEN YOU SELECT

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you are assured a complete

and continuing service no matter when you may need it

with

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